CITY OF SAN JOSE
CAPITAL OF SILICON VALLEY

Department of Public Works
CITY FACILITIES ARCHITECTURAL SERVICES DIVISION

January 5, 2009

ADDENDUM NO. 5

FOR THE CONSTRUCTION OF THE
CYPRESS SENIOR CENTER RENOVATIONS

Notice is hereby given that the following revisions, additions, and/or deletions are hereby made a part of and incorporated into the plans and specifications for the Cypress Senior Center Renovations.

CHANGES TO PROJECT MANUAL – TECHNICAL SPECIFICATIONS

CHANGES TO PROJECT MANUAL – CONSTRUCTION DRAWINGS

QUESTIONS AND ANSWERS

INSTRUCTIONS

The bidder must sign this addendum in the space provided below and return one signed copy with the bid. ***Failure to return the signed copy with bid documents shall not relieve the bidder of the obligation to include this addendum to the bid proposal. Bidder's failure to sign and submit any or all addenda with the bid shall be cause for rejection of the bid.***

APPROVED BY:

KATY ALLEN
Director
Public Works Department

Bidder's Name _____

Signature and Title of Bidder Date
KJ:ls

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CHANGES TO PROJECT MANUAL

I. Technical Specifications:

1. Section 07511 – Built-up Asphalt Roofing
   a. Delete: Entire Section
   b. Add: New section 07511

II. Construction Drawings:

1. Sheet A1.0
   a. Delete: Detail 2 Typical Roofing Detail in its entirety.
   b. Add: Detail 2 – Typical Roofing Patch Detail.

2. Sheet S0.1
   a. PLAN/ SHEET NOTES
      1. Add: Note 7. PATCHING/ ROOFING REQUIRED ONLY WHERE MECHANICAL & STRUCTURAL WORK OCCURS. SEE DETAIL 2, SHEET A1.0.

3. Sheet S1.2
   a. PLAN/ SHEET NOTES:
      1. Add: Note 7. PATCHING/ ROOFING REQUIRED ONLY WHERE MECHANICAL & STRUCTURAL WORK OCCURS. SEE DETAIL 2, SHEET A1.0.

QUESTIONS AND ANSWERS –

1Q. The asbestos report list quantities of certain asbestos containing materials that need to be abated. They also list asbestos floor tile – is this tile in Buildings A and C to be removed?

1A. Removal of the asbestos floor tile is not part of the project scope.

SECTION 07511

BUILT-UP ASPHALT ROOFING

PART 1 - GENERAL

1.01 SUMMARY

A. Section Includes
   1. Patching of (E) built-up roof.

B. Products Installed But Not Furnished Under This Section
   1. Install flashings and accessories furnished under Section 07620.

C. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 1 Specification Sections, apply to this Section.

D. Related Sections
   1. Section 06100 - Rough Carpentry: Provision of rooftop equipment bases and support curbs, wood blocking, curbs and nailers.
   2. Section 07900 - Joint Sealers: Provision of sealants.
   3. Division 15 - Mechanical: Provision of mechanical work to be performed above and penetrating roof.
   4. Division 16 - Electrical: Provision of electrical work to be performed above and penetrating roof.

1.02 REFERENCES

A. ASTM - American Society for Testing and Materials
   1. C726 - Standard Specification for Mineral Fiber Roof Insulation Board.
   2. D36 - Test Method for Softening Point of Bitumen (Ring-and-Ball Apparatus).
   3. D41 - Standard Specification for Asphalt Primer Used in Roofing, Damp-proofing and Waterproofing.
   4. D312 - Standard Specification for Asphalt Used in Roofing.
   5. D2178 - Standard Specification for Asphalt Glass Felt Used in Roofing and Waterproofing.
   6. D2824 - Standard Specification for Aluminum-Pigmented Asphalt Roof Coatings, Non-fibered, Asbestos Fibered, and Fibered without Asbestos.
   7. D3617 - Practice for Sampling and Analysis of New Built-Up Roof Membranes.
   8. D4601 - Standard Specification for Asphalt Coated Glass Fiber Base Sheet Used in Roofing.

B. FS - Federal Specification
   1. SS-C-153C - Cement, Bituminous, Plastic.

C. NRCA - National Roofing Contractor's Association

D. CBC - California Building Code, 2007 Edition

E. UL - Underwriters Laboratories, Inc.

1.03 SYSTEM DESCRIPTION

A. Performance Requirements
   1. Roofing System: Arrest water migration from entering building through roof membrane, and will withstand wind loads, thermally induced movement and exposure to weather without failure.

1.04 SUBMITTALS

A. Product Data: Submit manufacturer's product data, including technical product information, installation instructions, and recommendations for roofing product required. Include data substantiating that materials comply with requirements.

B. Quality Control Submittals
   1. Field Test Reports: Submit daily softening-point test reports on samples of asphalt used on the Project, taken at beginning of each day's work and at 2 hour intervals during course of the work thereafter. Use Ring and Ball Test, ASTM D36, or similar recognized test method. Submit samples to independent laboratory for testing or perform tests in field at Contractor's option.
   2. Certificates
      a. Submit manufacturer's certification indicating that all bulk bituminous materials delivered to the Project comply with required standards. Include quantity and statistical and descriptive data for each product. Submit certificate with each load before it is used.
         1) Include continuous log showing time and temperature for each load of bulk bitumen, indicating date obtained from manufacturer, where held, and how transported prior to final heating and application on roof.

1.05 QUALITY ASSURANCE

A. Qualifications
   1. Installer: Engage an experienced installer (roofer) to perform built-up asphalt roofing work who has specialized in installing built-up asphalt roofing systems similar to that required for this Project and who is acceptable to manufacturer of primary roofing materials.
      a. Installer Certification: Obtain written certification from manufacturer of built-up roofing system certifying that installer is approved by manufacturer to install specified roofing system. Provide copy of certification for the Architect prior to awarding roofing work.
      b. Installer's Field Supervision: Require installer to maintain a full-time supervisor or foreman who is on job site during times that built-up asphalt roofing work is in progress and who is experienced in installing roofing systems similar to type and scope required for this Project.

B. Regulatory Requirements
   1. Conform to CBC Section 1507 for roof assembly fire hazard requirements.
   2. Fire Hazard Classification: UL Class A.
   3. All asphalt roofing and built-up flashing materials shall be manufactured by or be acceptable to the roofing system manufacturer.

C. Pre-Installation Conference: As soon as possible after award of built-up roofing work, meet with Installer (Roofer), installers of substrate construction, such as decks, and other work adjoining roof system including penetrating work and rooftop units, the City, Architect and

representatives of other entities directly concerned with roofing system performance, including the City's insurers and test agencies.

1. Review requirements (Contract Documents), submittals, status of coordinating work, availability of materials, and installation facilities and establish preliminary installation schedule. Review requirements for inspections, tests, certifications, forecasted weather conditions, governing regulations, insurance requirements, and proposed installation procedures.
2. Discuss roofing system protection requirements for construction period extending beyond roofing installation. Discuss possible need for temporary roofing.
3. Record discussion, including agreement or disagreement on matters of significance; furnish copy of recorded discussions to each participant. If substantial disagreements exist at conclusion of conference, determine how disagreements will be resolved and set date for reconvening conference.

1.06 PROJECT CONDITIONS

A. Weather Condition Limitations: Proceed with roofing work only when existing and forecasted weather conditions will permit work to be performed according to manufacturers' recommendations and warranty requirements.

B. Temporary Roofing: When adverse job conditions or weather conditions prevent permanent roofing and associated work from being installed according to requirements and the Contractor determines that roofing cannot be delayed because of need for job progress or protection of other work, install temporary roofing. Engage roofing Installer to provide temporary roofing and to remove it prior to proceeding with permanent roofing work.

1.07 WARRANTY

A. General Warranty: The warranties specified in this Article shall not deprive the City of other rights the City may have under other provisions of the Contract Documents and shall be in addition to, and run concurrent with, other warranties made by the Contractor under requirements of the Contract Documents.

B. Standard Roofing Manufacturer's Warranty: Submit a written labor and material warranty, without monetary limitation, signed by roofing system manufacturer agreeing to promptly repair leaks in the roof membrane and base flashings resulting from defects in materials or workmanship for the following warranty period:
   1. Warranty Period: 5 years, no dollar limit.

C. The roofing manufacturer is required to inspect the system's installation and certify in writing that the installation was done in accordance with its recommendations. The roofing contractor must provide a 5 year workmanship/installation warranty. In addition, the roofing contractor must provide the following maintenance inspections:
   1. 1 inspection, 1 year after Substantial Completion.
   2. 1 inspection every 12 months thereafter for a period of 5 years.
   3. The results of each inspection must be documented in writing to develop a reliable roof history.

PART 2 - PRODUCTS

2.01 MANUFACTURERS

A. Acceptable Manufacturer: Johns-Manville; GAF, or approved equal.

B. Substitutions: Proposed substitutions shall be issued to the City for consideration prior to installing the substituted item. The City reserves the right to be final authority on acceptance or rejection of any substitute.

2.02 MATERIALS

A. Roof Composition for nailable roof deck: Provide mineral surfaced gravel surfaced roof system, with asphalt bitumen, meeting Johns-Manville 4GNG specification or approved equal: 1-ply JM GlasPly PermaPly 28, 3-plies JM GlasPly Premier paper, for lay-up as follows.
1. Base Ply: Single ply of fiber glass, complying with ASTM D4601, Type II.
2. Ply Felts: 3 plies of asphalt-coated, fiber glass ply felt, complying with ASTM D2178, Type VI.
4. Roof Coating: Asphalt Trumball or approved equal, Type III: 60 lbs per square. Gravel: 400 lbs per square.
6. Interply Bitumen: Roofing asphalt, complying with ASTM D312, Type III.

B. Roof Composition for use over insulation: Provide mineral surfaced gravel surfaced roof system, with asphalt bitumen, meeting Johns-Manville 4GIG specification or approved equal: 4-plies JM GlasPly Premier paper, for lay-up as follows.
1. Ply Felts: 4 plies of asphalt-coated, fiber glass ply felt, complying with ASTM D2178, Type VI.
2. Roof Coating: Asphalt Trumball or approved equal, Type III: 60 lbs per square. Gravel: 400 lbs per square.
3. Interply Bitumen: Roofing asphalt, complying with ASTM D312, Type III.

C. Bituminous Flashing: "DynaFlex" as manufactured by Johns Manville, or approved equal.

D. Preservative Treated Wood Blocking, Curbs, Cants and Nailers and Plywood Sheathing: As specified in Section 06100.

E. Fasteners: Factory-coated steel fasteners and metal or plastic plates complying with corrosion-resistance provisions of FM 4470; designed for fastening base sheets and base flashings and for back-nailing ply felts to substrate; tested by manufacturer for required pullout strength; and acceptable to roofing system manufacturer.

F. Tapered Insulation
1. Tapered rigid perlite board roof insulation, ASTM C728
2. Manufacturer: Johns Manville, or approved equal.

PART 3 - EXECUTION

3.01 GENERAL INSTALLATION REQUIREMENTS

A. Protect other work from spillage of built-up roofing materials, and prevent liquid materials from entering or clogging drains and conductors. Replace/restore other work damaged when installing built-up roofing system work.

B. Insurance/Code Compliance: Install and test, where required, built-up roofing system to comply with governing regulations and the following insurance requirements:
1. UL Fire Classified and Class 90 uplift resistance.

C. Coordinate installing roofing sheets, flashings, stripping, coatings, and surfacings so that felts are not exposed to precipitation or exposed overnight. Provide cutoffs at end of each day's

work to cover exposed felts with a course of coated felt with joints and edges sealed with roofing cement. Remove cutoffs immediately before resuming work.

D. Asphalt Bitumen Heating: Heat and apply bitumen according to EVT Method as recommended by NRCA. Do not raise temperature above minimum normal fluid-holding temperature necessary to attain EVT more than 1 hour prior to application. Discard bitumen that has been held at a temperature exceeding finished blowing temperature (FBT) for more than 3 hours. Determine flash point, FBT and EVT of bitumen, either by information from bitumen producer or by suitable tests. Determine maximum fire-safe handling temperature and do not exceed that temperature in heating bitumen. In no case heat bitumen to a temperature higher than 25 degrees Fahrenheit below flash point. Keep kettle lid closed except when adding bitumen.

E. Bitumen Mopping Weights: For interply mopping, and for other moppings except as otherwise indicated, apply bitumen between plies at the nominal rate of 23 pounds per roof square (plus or minus 20 percent on a total-job average basis).

F. Substrate Joint Penetrations: Do not allow bitumen to penetrate substrate joints and enter building or damage insulation, vapor retarders, or other construction. Where mopping is applied directly to a substrate, tape joints or, in the case of steep asphalt, hold mopping back 2 inches from both sides of each joint.

G. Cutoffs: At the end of each day's roofing installation, protect exposed edge of incomplete work, including ply sheets. Provide temporary covering of 2 plies of No. 15 roofing felt set in full moppings of hot bitumen; remove at beginning of the next day's work.

3.02 INSULATION INSTALLATION

A. Coordinate installing roofing system components so insulation is not exposed to precipitation or left exposed at the end of the workday.

B. Comply with roofing system manufacturer's written instructions for installing roofing insulation.

C. Install tapered insulation under area of roofing to conform to slopes indicated and to Shop Drawings.

D. Install tapered edge strips at perimeter edges of roof that do not terminate at vertical surfaces.

E. Install one or more layers of insulation under area of roofing to achieve required slopes as indicated. Where overall insulation thickness is 2 inches or greater, install required thickness in 2 or more layers with joints of each succeeding layer staggered from joints of previous layer a minimum of 6 inches in each direction.

F. Trim surface of insulation where necessary at roof drains so completed surface is flush with ring of drain.

G. Install insulation with long joints of insulation in continuous straight lines with end joints staggered between rows, abutting edges and ends between boards. Fill gaps exceeding 1/4-inch with insulation.
   1. Cut and fit insulation within 1/4-inch of nailers, projections, and penetrations.

3.03 BASE-SHEET INSTALLATION

A. Install 1 lapped course of base sheet according to roofing system manufacturer's written instructions, extending sheet over and terminating beyond cants. Spot mop to substrate with hot roofing asphalt.

3.04 BUILT-UP ROOF INSTALLATION

A. Interply Sheets: Install the number and types of ply sheets indicated amount specified to form a continuous, uniform membrane with continuous bitumen moppings between sheets so that ply sheet does not touch ply sheet.

B. Install lapped cap sheet according to roofing system manufacturer's written instructions, starting at low point of roofing system. Offset laps from laps of preceding ply felts and align cap sheet without stretching. Lap in direction to shed water.

C. Flood surface with asphalt at approximate rate of 60 lbs. per square. Into the hot asphalt embed aggregate to match existing, ASTM D 1863, with 50% solidly adhered to the hot asphalt.

3.05 FLASHING AND STRIPPING INSTALLATION

A. Install base flashing over cant strips and other sloping and vertical surfaces, at roof edges, and at penetrations through roof, and secure to substrates according to roofing system manufacturer's written instructions and as follows:
   1. Backer Sheet Application: Mechanically fasten backer sheet to walls or parapets. Adhere backer sheet over roof membrane at cants in a solid mopping of hot roofing asphalt.
   2. Flashing Sheet Application: Adhere flashing sheet to substrate in a solid mopping of hot roofing asphalt. Apply hot roofing asphalt to back of flashing sheet if recommended by roofing system manufacturer.

B. Extend base flashing up walls or parapets a minimum of 8 inches above roof membrane and 4 inches onto field of roof membrane.

C. Mechanically fasten top of base flashing securely at terminations and perimeter of roofing.
   1. Seal top termination of base flashing.

D. Install stripping where metal flanges and edgings are set on built-up roofing according to roofing system manufacturer's written instructions.
   1. Built-up Stripping: Install stripping of not less than 2 plies of roof membrane felt, setting each ply in a continuous coating of asphalt roofing cement or in a solid mopping of hot roofing asphalt, extended onto roof membrane 4 inches and 6 inches, respectively.

3.07 FIELD QUALITY CONTROL

A. The City will engage an independent testing and inspecting agency to perform field inspections and quality-assurance tests.
   1. Testing agency will prepare reports stating whether inspected and tested Work complies with or deviates from requirements.

B. Correct deficiencies in or remove and replace roof membrane that inspections and test reports indicate does not comply with specified requirements.
   1. Repair roof membrane that does not comply with specified requirements by re-adhering test specimens back in place and by applying additional plies, equal to the original number of plies specified, over test specimens according to roofing system manufacturer's written instructions.

C. Additional testing, at the Contractor's expense, may be performed to determine that corrected Work complies with specified requirements.

D. Test Cuts: Before flood coating and surfacing built-up roofing membrane, test specimens will be removed to evaluate problems observed during quality-assurance inspections of roof membrane as follows:
   1. Approximate quantities of components within roof membrane will be determined according to ASTM D3617.
   2. Test specimens will be examined for interply voids according to ASTM D3617 and to comply with the criteria established in Appendix 3 of ARMA/NRCA'S "Quality Control Guidelines for the Application of Built-up Roofing".

E. Final Roof Inspection: Arrange for roofing system manufacturer's technical personnel to inspect roofing installation on completion and submit report to the City. Notify the City 48 hours in advance of the date and time of inspection.

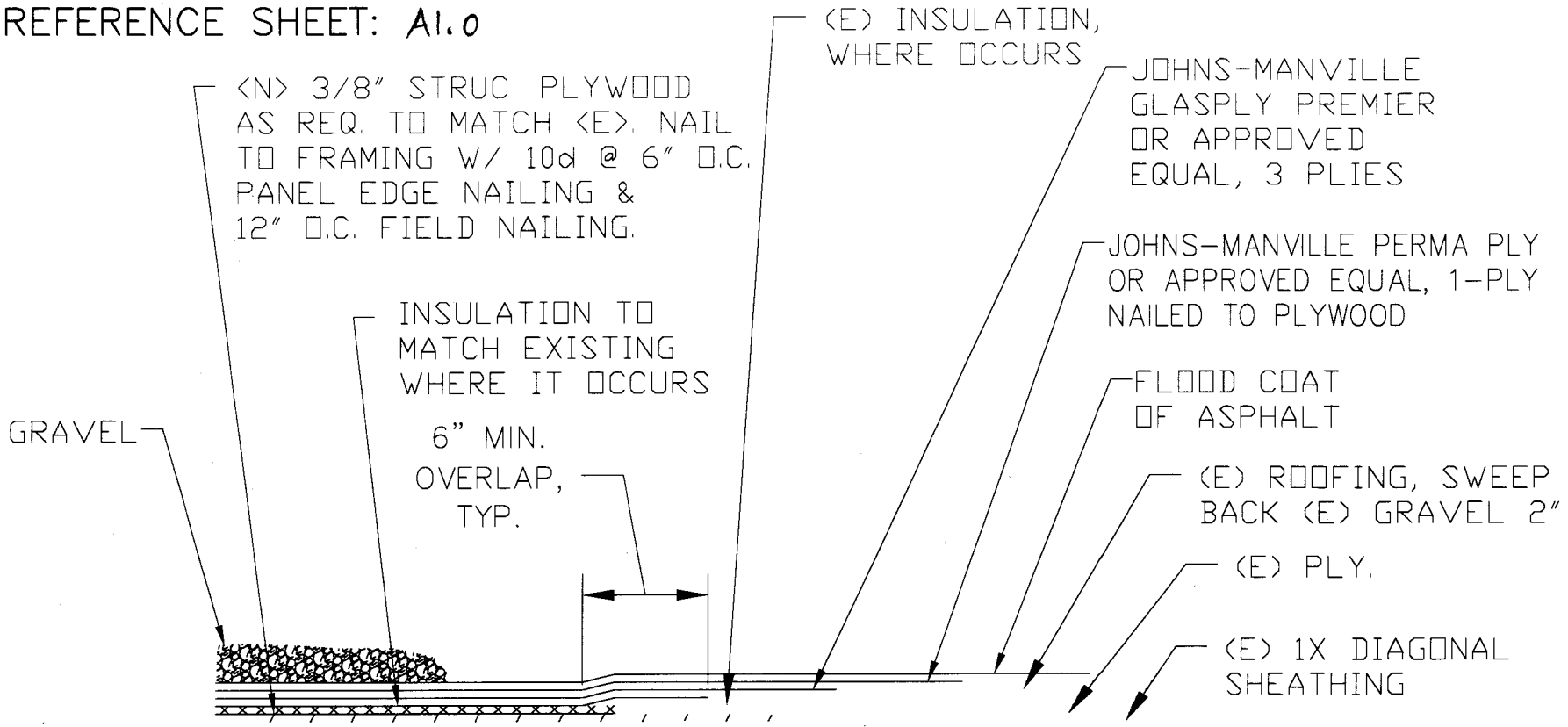
3.08 PROTECTION AND CLEANING

A. Protect built-up roofing membrane from damage and wear during remainder of construction period. When remaining construction will not affect or endanger roofing, inspect roofing for deterioration and damage, describing its nature and extent in a written report, with copies to the City.

B. Correct deficiencies in or remove built-up roofing that does not comply with requirements, repair substrates, reinstall roofing and repair base flashings to a condition free of damage and deterioration at the time of Substantial Completion and according to warranty requirements.

END OF SECTION

ADDENDUM NO.5
CYPRESS SENIOR CENTER
REFERENCE SHEET: A1.0



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NOTE:

WHERE (E) TAPERED PERLITE INSULATION OCCURS, INSTALL (N) INSULATION TO MATCH. USE 4 PLIES OF JOHNS-MANVILLE GLASPLY PREMIER AS SHOWN.

2 TYPICAL ROOFING PATCH DETAIL

1-1/2" = 1'-0"

ADDENDUM NO.5
CYPRESS SENIOR CENTER
REFERENCE SHEET: S0.1 & S1.2

PLAN/ SHEET NOTES

1. PROVIDE HU HANGERS AT ALL RAFTERS AND BEAMS, U.O.N SIZE SHALL MATCH THE SIZE OF THE RAFTER OR BEAM.
2. SLEEPERS NOT SHOWN ON FRAMING PLANS FOR CLARITY. SEE DETAIL FOR SLEEPER SIZE. SLEEPERS SHALL BE PROVIDED ON ALL FOUR SIDES OF EACH UNIT. ALL SLEEPERS SHALL BE PRESSURE TREATED DOUGLAS FIR.
3. ALL FRAMING CONNECTORS EXPOSED TO WEATHER OR IN CONTACT WITH PRESSURE TREATED WOOD SHALL BE HOT DIPPED GALVANIZED.
4. COORDINATE LOCATIONS OF MECHANICAL UNITS AND ROOF SCREENS WITH THE MECHANICAL ENGINEER AND WITH THE DIMENSIONS SHOWN ON BOTH THE STRUCTURAL AND THE MECHANICAL DRAWINGS.
5. APPROXIMATE LINEAL FOOT OF ROOF SCREEN FOR THE ENTIRE PROJECT IS 125 FT.
6. 4" CONC. PADS NOT SHOWN FOR CLARITY. PLEASE SEE MECH. DWGS.
7. PATCHING/ ROOFING REQUIRED ONLY WHERE MECHANICAL & STRUCTURAL WORK OCCURS. SEE DETAIL 2, SHEET A1.0.

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